

IN THE CLAIMS

1. (Currently Amended) A laminated glazing material with properties of acoustic insulation and mechanical strength, said glazing material comprising two glass sheets and a single-ply intermediate layer abutting the two glass sheets, the intermediate layer being in the form of a polymeric film and having a thickness,

wherein the intermediate layer primarily satisfies acoustic property criteria defined by a bar of 9 cm length and 3 cm width, made of laminated glass comprising two glass sheets of 4 mm thickness joined by the intermediate layer having a thickness of 2 mm, has a critical frequency which differs at most by 35% from that of a glass bar having a same length, a same width and a thickness of 4 mm, and

wherein the intermediate layer secondarily satisfies mechanical strength criteria based upon tearing resistance characteristics by setting the thickness of the intermediate layer is equal to at least $d_{ref} J_{ref}/J_c$, where J_c is a critical energy value specific to a material of the intermediate layer and representative of an energy necessary for propagation of a crack initiated in the intermediate layer, J_{ref} is a reference critical energy value which corresponds to a critical energy value of a polyvinyl butyral (PVB) film and is equal to 35,100 J/m² for a temperature of 20°C and for a drawing rate of 100 mm/min applied to the PVB film, and d_{ref} is a reference thickness which corresponds to that of the PVB film and is equal to 0.38 mm.

2. (Cancel)

3. (Currently Amended) A laminated glazing material with properties of acoustic insulation and mechanical strength, said glazing material comprising two glass sheets and a

Application Serial No.: 09/847,395
Reply to Office Action dated November 15, 2004

single-ply intermediate layer abutting the two glass sheets, the intermediate layer being in the form of a polymeric film and having a thickness,

wherein the intermediate layer primarily satisfies acoustic property criteria by having a loss factor greater than 0.6 and a shear modulus of between 1×10^8 and 2×10^7 N/m² in a temperature range of between 10 and 60°C and in a frequency range of between 50 and 10,000 Hz, and

wherein the intermediate layer secondarily satisfies mechanical strength criteria based upon tearing resistance characteristics by setting the thickness of the intermediate layer is equal to at least $d_{ref} J_{ref}/J_c$, where J_c is a critical energy value specific to a material of the intermediate layer and representative of an energy necessary for propagation of a crack initiated in the intermediate layer, J_{ref} is a reference critical energy value which corresponds to a critical energy value of a polyvinyl butyral (PVB) film and is equal to 35,100 J/m² for a temperature of 20°C and for a drawing rate of 100 mm/min applied to the PVB film, and d_{ref} is a reference thickness which corresponds to that of the PVB film and is equal to 0.38 mm.

4. (Cancel)

5. (Cancel)

6. (Cancel)

7. (Currently Amended) A polymer film having a thickness for use as only one intermediate layer of a laminated glazing material,

wherein the intermediate layer primarily satisfies acoustic property criteria defined by a bar of 9 cm length and 3 cm width, made of laminated glass comprising two glass sheets of 4 mm thickness joined by the intermediate layer having a thickness of 2 mm, has a critical

frequency which differs at most by 35% from that of a glass bar having a same length, a same width and a thickness of 4 mm, and

wherein the intermediate layer secondarily satisfies mechanical strength criteria based upon tearing resistance characteristics by setting the thickness of the intermediate layer equal to at least $d_{ref} J_{ref}/J_c$, where J_c is a critical energy value specific to a material of the intermediate layer and representative of an energy necessary for propagation of a crack initiated in the intermediate layer, J_{ref} is a reference critical energy value which corresponds to a critical energy value of a polyvinyl butyral (PVB) film and is equal to 35,100 J/m² for a temperature of 20°C and for a drawing rate of 100 mm/min applied to the PVB film, and d_{ref} is a reference thickness which corresponds to that of the PVB film and is equal to 0.38 mm.

8. (Cancel)

9. (Cancel)

10. (Cancel)

11. (Currently Amended) A polymer film having a thickness for use as only one intermediate layer of a laminated glazing material,

wherein the intermediate layer primarily satisfies acoustic property criteria by having a loss factor greater than 0.6 and a shear modulus of between 1×10^8 and 2×10^7 N/m² in a temperature range of between 10 and 60°C and in a frequency range of between 50 and 10,000 Hz, and

wherein the intermediate layer secondarily satisfies mechanical strength criteria based upon tearing resistance characteristics by setting the thickness of the intermediate layer equal to at least $d_{ref} J_{ref}/J_c$, where J_c is a critical energy value specific to a material of the

intermediate layer and representative of an energy necessary for propagation of a crack initiated in the intermediate layer, J_{ref} is a reference critical energy value which corresponds to a critical energy value of a polyvinyl butyral (PVB) film and is equal to 35,100 J/m² for a temperature of 20°C and for a drawing rate of 100 mm/min applied to the PVB film, and d_{ref} is a reference thickness which corresponds to that of the PVB film and is equal to 0.38 mm.

12. (Previously Presented) The laminated glazing material according to Claim 1, wherein the polymer film is a composite comprising a polymer and reinforcing fibers embedded in the polymer.

13. (Previously Presented) The polymer film according to Claim 7, wherein the intermediate layer is a composite comprising a polymer and reinforcing fibers embedded in the polymer.

14.-17. (Cancel)

18. (Previously Presented) The laminated glazing material according to Claim 3, wherein the polymer film is a composite comprising a polymer and reinforcing fibers embedded in the polymer.

19. (Previously Presented) The polymer film according to Claim 11, wherein the intermediate layer is a composite comprising a polymer and reinforcing fibers embedded in the polymer.